

AMENDMENTS TO THE CLAIMS

Please amend claim 23, and cancel claims 1-22, 25-26 and 31, as set forth in the listing of claims that follows:

1-22. (Cancelled)

23. (Currently Amended) A method for controlling a rear brake hydraulic circuit having a fluid storage element and a master cylinder supplying a volume of pressurized brake fluid to the rear brakes during the braking cycle in a pump-less anti-lock brake apparatus controlling the rotational speeds, during a braking cycle, of only the rear brakes of a vehicle having at least one front wheel, at least one rear wheel, and front and rear brakes acting on the front and rear wheels respectively, the method comprising:

determining whether the vehicle is operating lightly loaded at a light vehicle weight (LVW) or heavily loaded at a gross vehicle weight (GVW) as a function of the rotational speed of at least one rear wheel and the rear brake pressure pressure;

providing rear dynamic proportioning (RDP) when a predetermined deceleration rate is exceeded during the braking event with the vehicle operating at LVW; and

monitoring rear brake pressure; and

determining a rear brake pressure rate (RBP Rate) from the rear brake pressure
—inhibiting RDP when the vehicle is operating at GVW.

24. (Previously Presented) The method of claim 23 further comprising:
monitoring rear wheel speed;
monitoring rear brake pressure; and
controlling the rear brake hydraulic circuit as a function of the rear wheel speed
and the rear brake pressure.

25-26. (Cancelled)

27. (Previously Presented) The method of claim 23 further comprising:
monitoring rear wheel speed;
determining a vehicle speed (VS Est) as a function of rear wheel speed; and
determining an RDP entry point as a function of the vehicle speed (VS Est).

28. (Original) The method of claim 27 further comprising:
determining a vehicle acceleration (VA Est), and a rear wheel acceleration (RWA
Est) from the rear wheel speed;
determining an RDP term as a function of the vehicle acceleration (VA Est) and
rear wheel acceleration (RWA Est) for a vehicle operating at LVW.

29. (Original) The method of claim 28 further comprising determining if the
RDP term indicates operation of the vehicle at GVW.

30. (Original) The method of claim 29 further comprising:
monitoring rear brake pressure; and
determining if the vehicle is operating at LVW or GVW as a function of rear brake pressure and vehicle acceleration (VA Est).

31. (Cancelled)

32. (Previously Presented) The method of claim 23 further comprising providing rear pressure control (RPC) of the rear brake hydraulic circuit.

33. (Previously Presented) The method of claim 32 further comprising:
calculating an RPC entry point as a function of vehicle speed (VS Est);
calculating an RPC term as a function of vehicle speed; and
controlling the rear brake hydraulic circuit as a function of the RPC term and RPC entry point.

34. (Previously Presented) The method of claim 33 wherein the RPC term is calculated as the proportional and derivative difference between (VS Est) and the rear wheel speed.

35. (Original) The method of claim 34 further comprising:
determining a road surface condition; and
modifying the RPC entry point as a function of the road surface condition.

36. (Original) The method of claim 35 comprising determining the road surface condition as a function of variations of the rear wheel speed.

37. (Previously Presented) The method of claim 23 further comprising controlling the rear brake hydraulic circuit as a function of a volume available in the fluid storage device for receiving fluid supplied by the master cylinder during the braking cycle.

38. (Previously Presented) The method of claim 37 further comprising:
monitoring rear brake pressure; and
determining a rear brake pressure rate (RBP Rate) from the rear brake pressure.